REMARKS

With claims 46-109 previously pending, claims 49, 65, 81 and 97 have been amended to create independent claims by including the features of independent claims and any intervening claims on which they are based. Further new claims 110-125 have been added as detailed below.

I. Section 112 Rejection

In the Office Action, claims 48, 50-55, 61, 64, 66-71, 77, 80, 82-87, 93, 96, 98-103 and 109 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner indicates that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Based on the following remarks pointing out relevant parts of the specification identifying terms for individual claims, this rejection is respectfully traversed.

A. Claims 48, 64, 80 and 96

Regarding claims 48, 64, 80 and 96, the Office Action indicates the claimed subject matter of "data comprises both message and protocol information" is not described in the specification. However, Applicants' specification paragraph on page 10, beginning with line 20 reads as follows:

> "As used herein, a message, whether originated from a telephone or from a pager, may require a plurality of packets for transmission from a central station 20 to a pager 22 or vise versa. ... The transmitting device (either central station 20 or pager 22), allocates the message to one or more packets having a format similar to that of Fig. 12 ...."

Thus, data transferred in one or more packets is described to include a message, and referring to Fig. 12, it further includes protocol information. As defined in *The New IEEE Standard Dictionary of Electrical and Electronics*

Terms, Fifth Edition, IEEE Std 100-1992, protocol means "A formal set of conventions governing the format and relative timing of message exchange between two communication terminals." Referring to Applicants' Fig. 12, the data packet is shown to include the alphanumeric message along with protocol information which governs the message exchange, the protocol information including: a preamble, a sender ID, an addressee ID, an opcode, a checksum, an ECC and a postamble. Accordingly, Applicants maintain that their specification adequately describes that "data comprises both message and protocol information" that is the subject matter of claims 48, 64, 80 and 96.

B. Claims 50, 66, 82 and 98

Regarding claims 50, 66, 82 and 98, the Office Action indicates the claimed subject matter of "data comprises a plurality of successive packets" is not described in the specification. However, Applicants' specification describing message transmission using one or more packets continues on page 11, beginning on line 5 to read:

> "[T]he packets may be formatted in a manner to indicate the number of consecutively related packets emanating from a transmitter..."

Thus, a transmitter is described to transmit data in a number of consecutively related packets. As defined in *The Random House College Dictionary*, Random House, Inc., 1973, successive means "following in order or in uninterrupted sequence; consecutive." Accordingly, Applicants' maintain that their specification adequately describes that "data comprises a plurality of successive packets" that is the subject matter of claims 50, 66, 82 and 98.

C. Claims 51, 67, 83 and 99

Regarding claims 51, 67, 83 and 99, the Office Action indicates the claimed subject matter of "the specified amount of bandwidth requested comprises a total number of successive packets" is not described in the specification. However, following the text describing message transmission with the message allocated to one or more packets, Applicants' specification continues on page 11, beginning on line 7 describing an indication of the number of packets, or bandwidth, needed for the message stating:

> "(e.g. there may be a separate packet field indicating the continuation number of related packets)."

Thus, an indication of a specified amount of bandwidth needed for transmission of a message is disclosed, namely an indication of a number of successive packets carrying the message. Accordingly, Applicants' maintain that their specification adequately provides disclosure that "the specified amount of bandwidth requested comprises a total number of successive packets" that is the subject matter of claims 51, 67, 83 and 99.

D. Claims 52, 68, 84 and 100

Regarding claims 52, 68, 84 and 100, the Office Action indicates the claimed subject matter of "successive packets includes both message and protocol information" is not described in the specification. However, as indicated in the remarks above regarding Fig. 12, a packet as shown in Fig. 12 includes both message and protocol information. Accordingly, Applicants' maintain that their specification adequately provides disclosure that "successive packets includes both message and protocol information" that is the subject matter of claims 52, 68, 84 and 100.

E. Claims 53, 69, 85 and 101

Regarding claims 53, 69, 85 and 101, the Office Action indicates the claimed subject matter of "series of time slots occurring repeatedly" is not described in the specification. However, the statement that "the time slot in which the first node may transmit the first request signal is one of a series of time slots occurring repeatedly" is disclosed beginning on page 9, line 11, with reference to Fig. 13. As stated:

> "As explained in more detail below and illustrated in Fig. 13, in normal non-cell-switching operation, the pager request signal on frequency f_4 is transmitted in a predetermined time slot assigned to paging unit 22. The predetermined time slot on frequency f_4 is related to the clock-aligning signal (carried by frequency f_1) and assigned whereby the fourth frequency is utilizable by a plurality of other paging units. For example, as shown in Fig. 13, a first time slot on frequency f_4 is assigned to pager P1; a second time slot is assigned to pager P2, and so on up to time slot n assigned to pager Pn."

Referring to Fig. 13, time slots 1-n are illustrated on a time line for frequency f_4 in correspondence with a clock pulse reference frame on clock aligning signal frequency f_1. In Fig. 13, it is then noted that the time slots recycle so that another set of time slots 1-n on frequency f_4 will occur during a subsequent clock pulse on frequency f_1. Accordingly, Applicants' maintain that their specification adequately provides disclosure that "the time slot in which the first node may transmit the first request signal is one of a series of time slots occurring repeatedly" which is the subject matter of claims 53, 69, 85 and 101.

F. Claims 54, 70, 86 and 102

Regarding claims 54, 70, 86 and 102, the Office Action indicates the claimed subject matter of "a third signal", "a second specific timeslot", "the second node", "the second request signal is received after transmission of the second signal", and "prior to receipt of the data transmitted from the first node" are not described in the specification. However, beginning with the claim language "transmitting a third signal from the communication

controller to a second node, the third signal including information relating to a second specific timeslot in which the second node may transmit a second request signal," this information is disclosed in Applicants' specification beginning on page 16, line 7 with reference to the flow diagram of Fig. 5, the specification reading:

> "Fig. 5 depicts steps executed by microprocessor 80 of pager unit 22 when in a receive mode. After start-up (step 302), and as indicated by step 304, pager unit 22 receives transmissions from central control station 20...."

Now proceeding to page 19, line 3, the specification reads:

> "In connection with the time slot changing sub-routine, at step 352 microprocessor 80 extracts, from the received communications packet, information indicative of the new time slot assigned to the receiving pager unit 22. The new time slot is entered (at step 354) into memory 84 and thereafter utilized (until further change) in connection with transmission of request signals on frequency f_4..."

Now with reference to Fig. 13, the specification explains on page 9, beginning on line 15 how the central control unit assigns first, second, ... n^{th} time slots to different network nodes or pagers, reading:

> "For example, as shown in Fig. 13, a first time slot on frequency f_4 is assigned to a pager P1; a second time slot is assigned to pager P2, and so on up to time slot n assigned to pager Pn."

Thus, the central command unit transmits different timeslot assignments to a first network node, a second node, etc, corresponding to the claim language identified by the Examiner.

Now reference is made to the second claim language portion referred to by the Examiner reading "wherein the second request signal is received from the second node by the communication controller after

transmission of the second signal allocating the at least one timeslot to the first node for transmitting the data, and prior to receipt of the data transmitted from the first node." Referring to the specification page 13, lines 1-3, disclosure is provided indicating that once a request from a node is detected in a timeslot of frequency f_4, "the central command station 20 authorizes the requesting pager unit 22 to transmit its message." Later referring to the specification at page 13, lines 14-16, the node sends its data once the central command station authorization is received. Referring to the discussion above with respect to Fig. 13, requests can be made in timeslots 1-n which occur repeatedly on frequency f_4, and there is no signal interrupting the recurring timeslots. Thus, there is no limit to the occurrence of a second request relative to a first - i.e., the second request can occur in timeslot 7 of frequency f_4, for example, after the central command station 20 authorizes a request in timeslot 1, and before data is transmitted from the node allocated to timeslot 1. Accordingly, the claim language identified by the Examiner in claims 54, 70, 86 and 102 is believed supported by the specification.

G. Claims 55, 71, 87 and 103

Regarding claims 55, 71, 87 and 103, the Office Action indicates the claimed subject matter of "a third signal", "a second specific timeslot", "the second node", "the second request signal is received after transmission of the second signal", are not described in the specification. However, as indicated above with respect to claims 54, 70, 86 and 102, there is no limit to the occurrence of a second request relative to a first - i.e., the second request can occur in timeslot 7, before the central command station 20 authorizes transmission for a request in timeslot 1. Accordingly, the claim language identified by the Examiner in claims 55, 71, 87 and 103 is believed supported by the specification.

H. Claims 60, 76, 92 and 108

Regarding claims 60, 76, 92 and 108, the Office Action indicates the claimed subject matter of "data comprises both message and protocol information", and "a series of time slots occurring repeatedly" are not described in the specification. However, as detailed above with respect to claims 48, 64, 80 and 96, the claimed subject matter of "data comprises both message and protocol information" is believed disclosed. Further, as detailed above with respect to claims 53, 69, 85 and 101, the claimed subject matter of "a series of time slots occurring repeatedly" is believed disclosed.

I. Claims 61, 77, 93 and 109

Regarding claims 61, 77, 93 and 109, the Office Action indicates the claimed subject matter of "a third signal", "a second specific timeslot", "the second node", and "the second request signal is received after transmission of the second signal, and prior to receipt of the data transmitted from the first node" are not described in the specification. However, as detailed above with respect to claims 54, 70, 86 and 102, the claimed subject matter pointed out by the Examiner is believed disclosed.

J. Section 112 Response Conclusion

New claims 110-125 are dependent on respective ones of now independent claims 49, 65, 81 and 97. Claims 110-125 correspond with original claims dependent on claims from which claims 49, 65, 81 and 97 originally depended. For instance, new claims 110-113 correspond respectively with original claims 53, 48, 50 and 54; new claims 114-117 correspond respectively with original claims 69, 63, 66 and 70; new claims 118-121 correspond respectively with original claims 85, 80 82 and 86; and new claims 122-125 correspond

respectively with original claims 101, 96, 98 and 102For the reasoning stated above with respect to the corresponding original claims, claims 110-125 are believed allowable under 35 U.S.C. § 112, first paragraph.

Based on the above remarks, claims 48, 50-55, 61, 64, 66-71, 77, 80, 82-87, 93, 96, 98-103 and 109-125 are now all believed allowable under 35 U.S.C. § 112, first paragraph.

II. Double Patenting Rejection

Claims 46, 47, 56, 57, 59, 60, 62, 63, 65, 72, 73, 75, 76, 78, 79, 81, 88, 89, 91, 92, 94, 95, 97, 104, 105, 107 and 108 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over particular claims in U.S. Patent No. 6,282,406. Further, claims 58, 74, 90 and 106 stand rejected as being unpatentable over claim 3 of U.S. Patent No. 6,108,520. The Examiner indicates that although conflicting claims are not identical, they are not patentably distinct from each other.

The Office Action indicates a terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome the nonstatutory double patenting rejection as long as the patents are commonly owned with this application. Attached are terminal disclaimers for both patent nos. 6,282,406 and 6,108,520, as well as a statement under 37 C.F.R. §3.73(b). Accordingly, the double patenting rejection is now believed overcome.

III. Conclusion

In light of the above amendments and remarks, claims 46-125 are now all believed to be in condition for allowance. Accordingly, reconsideration and allowance of these claims is respectfully requested.

Respectfully submitted,

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